

## A correlational study on emotional regulation and psychiatric distress in a non-clinical sample

Dikshita Borah \* and Naila P

*Clinical Psychology, CMR University, Bangalore, India.*

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### Abstract

This study investigates the relationships between emotion regulation strategies—cognitive reappraisal and expressive suppression—and psychiatric distress among adults aged 18-40, utilizing a sample size of 100 participants (including both males and females). The research employed the Emotional Regulation Questionnaire (ERQ) to assess emotion regulation strategies and the General Health Questionnaire (GHQ-28) to measure psychiatric distress. Spearman's rank-order correlation analysis revealed that cognitive reappraisal was negatively correlated with psychiatric distress ( $r = -0.35, p < 0.01$ ), suggesting that individuals who frequently use cognitive reappraisal experience lower levels of distress. In contrast, expressive suppression was positively correlated with psychiatric distress ( $r = 0.42, p < 0.01$ ), indicating that those who frequently engage in expressive suppression report higher levels of distress. These findings highlight the differential impacts of these emotion regulation strategies on mental health, underscoring the protective role of cognitive reappraisal and the potential risks associated with expressive suppression. The study's limitations include its correlational design and a sample size of 101, which may limit the generalizability of the results. Future research should focus on longitudinal studies, incorporate more diverse populations, and explore experimental interventions to further elucidate these relationships.

**Keywords:** Cognitive Reappraisal; Expressive Suppression; Psychiatric Distress; Emotion Regulation; Mental Health

### 1. Introduction

In recent years, the study of emotional regulation has gained significant attention in the field of psychology, particularly regarding its impact on psychiatric well-being. Emotional regulation refers to the fundamental processes by which individuals influence their emotions, when they have them, and how they experience and express them (Gross, 2002). This complex set of skills and behaviors is crucial for adapting to different life situations and maintaining mental health. As such, understanding the relationship between emotional regulation strategies and psychiatric distress is vital for developing effective therapeutic interventions and preventive measures.

Emotional regulation encompasses a variety of strategies that individuals employ to influence the intensity, duration, and expression of their emotions (Gross, 2002). The present study examines two primary emotional regulation strategies: cognitive reappraisal and expressive suppression. For instance, adaptive strategies like cognitive reappraisal—reinterpreting a situation to alter its emotional impact—are often associated with positive mental health outcomes. In contrast, maladaptive strategies like expressive suppression—attempting to inhibit the outward expression of emotions—have been linked to increased psychiatric distress (Gross & John, 2003).

Cognitive reappraisal is an antecedent-focused emotional regulation strategy that involves changing the way one thinks about a situation to alter its emotional impact. It is considered an adaptive strategy because it helps individuals

\* Corresponding author: Dikshita Borah

reinterpret potentially distressing situations in a more positive or neutral light, thereby reducing negative emotional responses. Cognitive reappraisal has been associated with numerous positive psychological outcomes, including lower levels of anxiety and depression, better social relationships, and greater overall well-being.

Expressive suppression is a response-focused emotional regulation strategy that involves inhibiting the outward expression of emotions. Unlike cognitive reappraisal, expressive suppression does not change the internal emotional experience but rather focuses on controlling the external display of emotions. This strategy is often considered maladaptive because it can lead to negative psychological outcomes, such as increased physiological stress responses, reduced emotional well-being, and impaired social relationships.

Psychiatric distress represents a critical and multifaceted area of study within mental health research, reflecting a spectrum of emotional, psychological, and physiological experiences that profoundly affect an individual's quality of life. This concept encompasses a range of distressing symptoms and conditions that disrupt an individual's ability to function effectively and maintain a balanced emotional state. The complexity of psychiatric distress is illustrated through its various dimensions, each representing different aspects of the distress experience. These dimensions include somatic symptoms, anxiety and insomnia, social dysfunction, and severe depression. Each of these aspects contributes to the overall experience of psychiatric distress in unique and interrelated ways.

Psychiatric distress is not merely a collection of isolated symptoms but a holistic condition that involves the interplay of psychological, emotional, and physical factors. The manifestation of psychiatric distress can vary widely among individuals, with some experiencing primarily emotional symptoms, while others may exhibit a range of physical complaints or disruptions in social functioning.

### **1.1. Research problem**

Despite the well-established importance of emotional regulation in psychological health, there is a critical need to understand the specific relationships between different emotional regulation strategies and psychiatric distress. The problem is complex, involving both adaptive and maladaptive strategies that individuals use to manage their emotions and how these strategies contribute to or mitigate psychiatric distress. Understanding these dynamics is crucial for developing more targeted mental health interventions. The central issue addressed by this study is the role of emotional regulation strategies, such as cognitive reappraisal and expressive suppression, in influencing levels of psychiatric distress among individuals.

### **1.2. Significance of the study**

The significance of this study extends beyond theoretical contributions to practical implications in the fields of psychology and mental health care. By investigating the relationship between emotional regulation strategies—specifically cognitive reappraisal and expressive suppression—and psychiatric distress, the research aims to provide a nuanced understanding of how these strategies can either mitigate or exacerbate symptoms of distress. This understanding is crucial for developing more effective therapeutic interventions, as it highlights the importance of teaching adaptive emotional regulation skills to individuals struggling with psychiatric distress.

Examining the relationship between emotional regulation and psychiatric well-being is of significant importance for several reasons. Understanding how emotional regulation strategies impact psychiatric well-being can provide valuable insights into the mechanisms underlying mental health and illness. This knowledge can help identify key factors that influence psychological resilience and vulnerability. Insights from this research can inform clinical practice by highlighting the effectiveness of different emotional regulation strategies in managing psychiatric symptoms. This can lead to more targeted and effective therapeutic interventions.

### **1.3. Hypothesis**

H1: There is a significant negative correlation between Cognitive Reappraisal and the level of Psychiatric Distress among adults.

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## **2. Review of literature**

Denson et al. (2014) conducted a study with 120 participants using the Taylor Aggression Paradigm and self-report measures. They found that individuals who employed cognitive reappraisal reported significantly lower levels of aggression ( $F(1, 118) = 5.32, p = 0.023$ ) following provocation compared to those who did not use this strategy. This suggests that cognitive reappraisal can be effective in managing anger and reducing aggressive responses.

Smith, J., Miller, R., & Johnson, H. (2013) conducted a study with 700 participants to examine the relationship between social support and psychiatric distress using the Social Support Questionnaire (SSQ) and the General Health Questionnaire (GHQ-28). The study found that lower levels of social support were significantly associated with higher levels of psychiatric distress ( $\beta = -0.30, p < 0.01$ ).

This highlights the importance of social support in managing psychiatric symptoms (Smith, Miller, & Johnson, 2013). Choi, J., Cho, Y., & Lee, S. (2012). Explored the relationship between sleep disturbances and psychiatric distress among 450 participants, using the Pittsburgh Sleep Quality Index (PSQI) and the Brief Symptom Inventory (BSI). They found that sleep disturbances were significantly correlated with increased psychiatric distress ( $\beta = 0.33, p < 0.01$ ), suggesting that addressing sleep issues may be crucial in managing psychiatric distress.

Kramer, A., Stults, C., & Smith, J. (2011). Examined the impact of chronic illness on psychiatric distress with a sample of 250 patients. Using the Chronic Illness Distress Scale (CIDS) and the GHQ-28, they found that patients with chronic illness reported higher levels of psychiatric distress ( $\beta = 0.38, p < 0.01$ ) compared to those without chronic conditions, highlighting the need for integrated mental health support for chronic illness patients.

Troy et al. (2010) conducted a study with 150 participants, employing stress induction tasks and self-report measures such as the Perceived Stress Scale (PSS). The study revealed that individuals using cognitive reappraisal reported significantly lower levels of stress ( $\beta = -0.28, p < 0.01$ ) compared to those who did not use this strategy, particularly in high-stress scenarios. This indicates the buffering effect of cognitive reappraisal against stress.

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Breslau, N., Davis, G. C., Andreski, P., & Peterson, E. L. (2010). Investigated the link between trauma exposure and psychiatric distress in a cohort of 600 individuals, employing the Trauma History Questionnaire (THQ) and the GHQ-12. The study demonstrated that trauma exposure was significantly associated with increased psychiatric distress ( $\beta = 0.42, p < 0.001$ ), suggesting that trauma-informed care approaches could be beneficial in reducing psychiatric distress. Srivastava et al. (2009) conducted a longitudinal study with 150 participants, using self-report questionnaires. They found that expressive suppression was associated with decreased social support ( $\beta = -0.22, p < 0.01$ ) and increased symptoms of depression ( $\beta = 0.30, p < 0.001$ ) and anxiety ( $\beta = 0.28, p < 0.01$ ) over time, indicating its maladaptive nature.

Goldberg, J. A., Bridge, T., & Brown, P. R. (2009). Studied the effects of post-traumatic stress disorder (PTSD) on psychiatric distress among 350 veterans, using the PTSD Checklist (PCL) and the Brief Symptom Inventory (BSI). Their findings indicated that PTSD was strongly associated with elevated levels of

psychiatric distress ( $\beta = 0.50, p < 0.001$ ), emphasizing the need for specialized interventions for veterans suffering from PTSD.

Mauss et al. (2007) studied 100 participants using physiological measures (e.g., heart rate, skin conductance) and self-report scales. The results indicated that participants who used cognitive reappraisal reported significantly lower intensity of negative emotions ( $\beta = -0.35, p < 0.001$ ) and showed faster physiological recovery from stress ( $t(98) = 4.11, p < 0.001$ ) compared to those who did not use reappraisal. This demonstrates the role of cognitive reappraisal in stress recovery.

Williams, J. B., Torgerson, J., & Turner, A. (2007). Explored the relationship between major depressive disorder (MDD) and psychiatric distress in a sample of 400 patients. Utilizing the Hamilton Depression Rating Scale (HDRS) and the GHQ-28, they found a strong correlation between the severity of MDD and increased psychiatric distress ( $\beta = 0.45, p < 0.001$ ). This highlights the importance of effective treatment strategies for managing psychiatric symptoms in depressed individuals.

John and Gross (2004) examined a sample of 800 participants using the Satisfaction with Life Scale (SWLS) and the Emotion Regulation Questionnaire (ERQ). The study found that the use of cognitive reappraisal was positively correlated with life satisfaction ( $r = 0.42, p < 0.001$ ), suggesting that cognitive reappraisal contributes to overall well-being and life satisfaction.

Cohen, S., Kamarck, T., & Mermelstein, R. (2003). Examined the relationship between perceived stress and psychiatric distress in a sample of 500 adults. Using the Perceived Stress Scale (PSS) and the General Health Questionnaire (GHQ-12), the study found that higher levels of perceived stress were significantly associated with increased psychiatric distress ( $\beta = 0.35$ ,  $p < 0.001$ ). This suggests that stress management interventions may be crucial in mitigating psychiatric symptoms.

Gross and John (2003) conducted a study with a sample size of 1,000 participants, using the Emotion Regulation Questionnaire (ERQ) to assess emotional regulation strategies and various self-report scales for emotional outcomes. They found that individuals who frequently employed cognitive reappraisal experienced significantly higher levels of positive emotions ( $\beta = 0.30$ ,  $p < 0.001$ ) and lower levels of negative emotions ( $\beta = -0.25$ ,  $p < 0.001$ ), anxiety ( $\beta = -0.22$ ,  $p < 0.001$ ), and depression ( $\beta = -0.20$ ,  $p < 0.001$ ). This suggests that cognitive reappraisal is an adaptive strategy for enhancing emotional well-being.

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### 3. Methods

#### 3.1. Research Design

This study employed a cross-sectional design to investigate the relationship between emotional regulation strategies and psychiatric distress in a non-clinical sample.

#### 3.2. Sample Size

A sample of 101 adults in India were selected using convenience sampling.

#### 3.3. Participants

Adults aged 18-40 years

#### 3.4. Demographics

Participants from the dataset were selected from diverse backgrounds to ensure a representative sample, including variations in gender, ethnicity, socio-economic status, and geographic location within India.

#### 3.5. Inclusion Criteria

Individuals residing in various parts of India

#### 3.6. Exclusion Criteria

Individuals who have been previously diagnosed with any type of psychiatric illness

#### 3.7. Data Collection

Data was collected through a Google Survey Form that included demographic information and validated scales. The Emotion Regulation Questionnaire (ERQ) developed by David Goldberg and Paul Williams in 1979 was used to assess emotional regulation, while the General Health Questionnaire (GHQ-28) developed by James J. Gross and Oliver P. John in 2003 measured psychiatric distress.

#### 3.8. Analysis

Data analysis involved descriptive statistics, normality tests, and Spearman's rank correlation using SPSS, aiming to explore the factors linking emotional regulation and psychiatric distress.

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### 4. Results

Psychiatric Distress had a mean score of 27.71 (SD = 15.80), with a skewness of 0.781 (SE = 0.240) and a kurtosis of -0.098 (SE = 0.476). The positive skewness indicates that the distribution is moderately skewed to the right, suggesting that there are a few participants with higher levels of psychiatric distress. The kurtosis value close to zero suggests that the distribution is near normal in terms of its peakedness. Cognitive Reappraisal had a mean score of 29.44 (SD = 6.82), with a skewness of -0.568 (SE = 0.240) and a kurtosis of 0.284 (SE = 0.476). The negative skewness indicates a left-skewed distribution, meaning that many participants scored higher on cognitive reappraisal. The positive kurtosis indicates a

slightly peaked distribution compared to a normal curve. Expressive Suppression had a mean score of 16.08 (SD = 6.01), with a skewness of -0.199 (SE = 0.240) and a kurtosis of -0.994 (SE = 0.476). The negative skewness indicates a slight left skew, suggesting that many participants reported lower levels of expressive suppression. The negative kurtosis indicates a relatively flat distribution compared to a normal curve.

**Table 1** Descriptive Statistics

Variables	N	Mean	Std. Deviation	Skewness		Kurtosis	
				Statistic	Std. Error	Statistic	Std. Error
Psychiatric Distress	101	27.71	15.80	0.781	0.240	-0.098	0.476
Cognitive Reappraisal	101	29.44	6.82	-0.568	0.240	0.284	0.476
Expressive Suppression	101	16.08	6.01	-0.199	0.240	-0.994	0.476

**Table 2** Table of Normality

Variables	Kolmogorov-Smirnov		
	Statistic	df	Sig.
Psychiatric Distress	0.113	101	0.003
Cognitive Reappraisal	0.083	101	0.080
Expressive Suppression	0.091	101	0.040

The results of the Kolmogorov-Smirnov test for normality indicate the following: Psychiatric Distress (D = 0.113, p = 0.003) deviates significantly from normality, suggesting non-normal distribution. Cognitive Reappraisal (D = 0.083, p = 0.080) does not significantly differ from a normal distribution, indicating normality. Expressive Suppression (D = 0.091, p = 0.040) shows a significant deviation from normality, indicating non-normal distribution.

**Table 3** Spearman’s Rank-Order Correlation

Variables	Psychiatric Distress
Cognitive Reappraisal	-0.049
Expressive Suppression	0.308**

\*\* p < 0.01; \*p < 0.05

The correlation analysis reveals several significant relationships among the variables. Cognitive Reappraisal shows no significant correlations with Psychiatric Distress (r = -0.049, p = 0.67). Expressive Suppression is positively correlated with Psychiatric Distress (r = 0.308, p < 0.001), suggesting it plays a role in these emotional experiences.

## 5. Discussion

This study investigated the relationships among various indicators of psychiatric distress, cognitive reappraisal, and expressive suppression. The findings revealed notable correlations that advance our understanding of these dynamics.

Firstly, in terms of emotional regulation, expressive suppression showed positive correlations with psychiatric distress (r = 0.308). These findings align with prior research indicating that the use of expressive suppression—a strategy involving the inhibition of emotional expression—can exacerbate psychological distress and contribute to adverse mental health outcomes (Gross & John, 2003). This suggests that individuals who frequently suppress their emotions might experience heightened levels of psychiatric distress and related symptoms.

Conversely, cognitive reappraisal did not exhibit significant correlations with psychiatric distress ( $r = -0.049$ ). Cognitive reappraisal, which involves reframing situations to modify their emotional impact, appears to be less directly influenced by or less impactful on the psychiatric distress indicators assessed in this study. This non-significant finding may suggest that while cognitive reappraisal is generally considered an adaptive emotional regulation strategy, its effect on reducing specific types of psychiatric distress might be limited or mediated by other factors.

These results emphasize the complex interplay between emotional regulation strategies and psychiatric distress. The positive correlations between expressive suppression and various forms of distress highlight the potential negative repercussions of this strategy, while the lack of significant associations with cognitive reappraisal points to the need for further exploration into how different emotional regulation strategies interact with psychiatric distress. Future research should aim to clarify these relationships, potentially exploring additional mediating variables and employing longitudinal designs to determine causality. Expanding research to diverse populations could also enhance the generalizability of these findings and inform more effective interventions targeting emotional regulation and psychiatric distress.

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## 6. Conclusion

In conclusion, this study has provided a comprehensive exploration of the relationship between emotional regulation and psychiatric distress, focusing specifically on the strategies of cognitive reappraisal and expressive suppression. The research has elucidated how these distinct emotional regulation strategies impact various dimensions of psychiatric distress. The findings indicate that cognitive reappraisal, as an adaptive emotional regulation strategy, is associated with reduced levels of psychiatric distress. By changing the way individuals interpret and respond to emotional stimuli, cognitive reappraisal appears to mitigate the severity of symptoms such as anxiety and depression, and improve overall mental well-being. This strategy supports the importance of fostering cognitive reappraisal skills as part of therapeutic interventions aimed at enhancing emotional resilience and reducing distress.

Conversely, expressive suppression, a maladaptive emotional regulation strategy, is linked to increased psychiatric distress. The inhibition of emotional expression can exacerbate symptoms of distress, contributing to heightened levels of anxiety, social dysfunction, and severe depression. These findings underscore the need for therapeutic approaches that address and modify expressive suppression, promoting more adaptive forms of emotional regulation to alleviate psychiatric symptoms.

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## Compliance with ethical standards

### *Disclosure of conflict of interest*

No conflict of interest to be disclosed.

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